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09/503,037	02/11/2000	Joseph Korb	84582.1000	6037

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EXAMINER	
AVELLINO, JOSEPH E	
ART UNIT	PAPER NUMBER
2143	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/503,037	KORB ET AL.	
	Examiner	Art Unit	
	Joseph E. Avellino	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *52-81* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *52-81* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 52-81 are presented for examination; claims 52 and 60 independent.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 52-67, 71-73, and 77-81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox et al. (Adapting to Network and Client Variability via On-Demand Dynamic Distillation; ACM, October 1996) (cited by Applicant in IDS) (hereinafter Fox) in view of Hawkins et al. (USPN 6,343,318) (cited by Applicant in IDS) (hereinafter Hawkins).

3. Referring to claim 52, Fox discloses a web server (i.e. proxy) for transferring data from the internet (i.e. servers) to mobile wireless devices (i.e. clients) that have limited display capabilities (p. 160), comprising:

a web server (i.e. proxy) that is connected to wireless devices (i.e. clients) via one or more corresponding wireless communications networks (i.e. network client is connected through), and is also connected to the Internet (i.e. connected to the server) (p. 162, see figure), and

wherein the web server is further configured to:

receive requests from users of the wireless devices to view Internet web pages, wherein the requests are received in accordance with a transport protocol used by a requesting wireless device in its corresponding wireless communications network (it is inherent that in order for a device to communicate, it must utilize a transport protocol) (p. 162 section 2.1);

send the HTTP requests to destination devices on the Internet in accordance with an Internet transport protocol (p. 162, section 2.1: "retrieve content from Internet servers on the client's behalf");

receive the requested web pages from the destination servers (p. 162, section 2.1: "retrieve content from Internet servers on the client's behalf");

parse data elements contained in the received web pages and remove non-displayable data elements (i.e. distilling) from the web pages to generate displayable web pages based on the wireless device type of the requesting device (p. 162, sections 2.1-2.2: "determine which distillation engines must be employed...if the client has an 8-bit grey-scale display..."), and

send the web pages, without including the removed data elements, over the wireless communications networks to the requesting wireless device (p. 160, section 1: "data-type specific lossy compression"; p. 161 section 1.4: "provide the best possible service to all clients").

Fox does not explicitly state that the client's transport protocol includes an element which identifies the type of wireless device that is making the request and the conversion of the request into an HTTP request. In analogous art, Hawkins discloses another web server which transfers data from the Internet to a client device, which discloses an element which identifies the type of wireless device that is making the request (i.e. "client 405 could send a CTP request that tells the proxy server 180 that the wireless client 405 is a particular wireless communications device 100. This would automatically indicate a set of attributes including the screen size, bit depth, and accepted return data types) (cols. 161-162, lines 5-10) and the proxy server 180 can convert the CTP query 124 into an HTTP query 126 (Figure 1). It would have been obvious to one of ordinary skill in the art to combine Hawkins with Fox since Fox discloses that the proxy knows the device type and capabilities of the client device, however does not specifically state how this information is known to the proxy server. This would motivate one of ordinary skill in the art to search the art for other proxy systems which determine the device type and capabilities of the requesting device, eventually finding Hawkins and its novel method of pulling this information from a CTP header used in Hawkins (cols. 161-162, lines 5-10).

4. Referring to claim 53, Fox-Hawkins discloses the transport protocol includes the wireless device type (Hawkins: cols. 161-162, lines 5-10).

5. Referring to claim 54, Fox-Hawkins discloses the server determines the device type to be the type of device identified in the transport protocol (Hawkins: cols. 161-162, lines 5-10).

6. Referring to claims 55-57, Fox-Hawkins disclose the invention substantially as claimed. Fox-Hawkins further disclose reformatting the request into HTTP requests (Hawkins: Figure 1), removing non-displayable data elements (see rejection above, and reformat a requested web page by building tags containing remaining data elements (i.e. compress web page) (Fox: p. 165). Fox in view of Himmel does not specifically disclose that this is done by a child process, however it is well known that web servers are multithreaded, being able to handle multiple requests at once and executing multiple tasks at the same time. By this rationale, "Official Notice" is taken that both the concept and advantages of providing for a child or helper process to take care of various tasks on the server is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to modify the system of Fox-Hawkins to have child processes provide task execution in order to free up the web server thread to receive requests for data and to send data back to the clients, greatly freeing up computing resources as well as improving the overall throughput of the proxy server system of Fox-Hawkins.

7. Referring to claim 58, Fox-Hawkins discloses the server compresses and encrypts (the Office construes the term "encrypts" as "changing or modifying at least

one bit of data", as such compression of the data can be considered encryption) the web page (i.e. Gzip compression) (Fox: p. 165, col. 1).

8. Referring to claim 59, Fox-Hawkins discloses generating a plurality of data packets for sending the data elements to the device (i.e. IP inherently packetizes the data to be transmitted over the network) (Fox: p. 168, section 5.1).

9. Claims 60-67, 71-73, and 77-79 are rejected for similar reasons as stated above.

10. Referring to claim 80, Fox-Hawkins discloses a browser application on the wireless device which allows the input of a URL of a webpage of interest (Hawkins: col. 1, lines 60-67).

11. Claim 81 is rejected for similar reasons as stated above.

Claims 68, 69, 74, and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox-Hawkins in view of Edholm (US 2003/0067940).

12. Referring to claims 68 and 69, Fox-Hawkins discloses the invention substantively as described in the claims above. Fox-Hawkins does not specifically disclose pacing the transmission of the data packets based on a bandwidth capability of the network. In analogous art, Edholm discloses another method for transferring data from the Internet

to a client device which discloses pacing the transmission of the data packets based on a bandwidth capability of the network (i.e. threshold bandwidth based on the receiving capabilities of a client device) (e.g. abstract). It would have been obvious to one of ordinary skill in the art to combine the teaching of Edholm with Fox-Hawkins in order to reduce the need for flow control signals and large buffers in the client devices as supported by Edholm (p. 1, ¶ 7-8).

13. Claims 74 and 75 are rejected for similar reasons as stated above..

Claims 70 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fox-Hawkins in view of Hedin et al. (USPN 6,185,535) (hereinafter Hedin).

14. Referring to claim 70, Fox-Hawkins discloses the invention substantively as described in the claims above. Fox-Hawkins does not specifically disclose converting web pages from HTML to another tag language. In analogous art, Hedin discloses another method for transferring data from a server to a client which discloses converting HTML into WML (i.e. another tag language) (col. 5, lines 45-55). it would have been obvious to one of ordinary skill in the art to combine the teachings of Hedin with Fox-Himmel in order to conform the web page to the specifics of the device type, resulting in a web page which can be displayed to a user on the low power device as supported by Hedin (col. 5, lines 50-55).

15. Claim 76 is rejected for similar reasons as stated above.

Response to Arguments

16. Applicant's arguments filed April 27,2007 have been fully considered but they are not persuasive.

17. In the remarks, Applicant argues, in substance, that (1) Hawkins does not disclose a transport protocol which includes an element which identifies the device type of the wireless device which makes the request.

18. As to point (1), Applicant is incorrect. The layer used to transmit the CTP request (i.e. the RMP layer) encapsulates the CTP request, and therefore includes an element within the lower layer (i.e. the payload of the RMP packet), since the entire CTP request is included in the lower layer packet, it will include the device type used in the CTP request within the RMP packet. Applicant is requested to amend the claim to recite that the device type is inserted at the transport layer, and to ensure proper support can be found within the specification. By this rationale, the rejection is maintained.

Conclusion

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph E. Avellino whose telephone number is (571) 272-3905. The examiner can normally be reached on Monday-Friday 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Joseph E. Avellino, Examiner
September 3, 2007